Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1 of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Huber Engineered Woods, LLC
Facility Name:	Huber Engineered Woods, LLC - Crystal Hill, VA
Facility Location:	Chaney Lane - Route 3, Highway 626, Halifax County, Virginia
Registration Number:	30905
Permit Number	SCRO30905

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through IX)

May 22, 2008
Effective Date

May 21, 2013
Expiration Date

_____
T.L. Henderson
Regional Director, South Central Regional Office

May 20, 2008
Signature Date

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I. Facility Information

Permittee
Huber Engineered Woods, LLC
Highway 626, Route 3
P.O. Box 38
Crystal Hill, VA 24539

Responsible Official
Jeremy Catron
Plant Manager

Facility
Huber Engineered Woods, LLC - Crystal Hill, VA
Chaney Lane - Highway 626, Route 3,
Crystal Hill (Halifax County) VA 24539

Contact Person
George Hodges
Environmental Manager
(434) 476-6628 ext 229

County-Plant Identification Number: 51-083-00050

Facility Description: NAICS 321219 – The facility manufactures a reconstituted wood product known as oriented strandboard (OSB).

II. Emission Units

Equipment to be operated consists of:

A. Significant Emissions Units

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity (Notes 1 & 2)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
WY	S4	Wood yard (PS&E Log Handling line) & (2) Waferizers	227,286 OD lbs/hr log input & 71,902 OD lbs/hr output, each	---	---	PM	Note 3
ES&D	S1A, S1B, S1C, and S1D	Wellons Energy System including a 40 MMBtu/hr Wood Fired Thermal Oil Heat Exchanger & (2) MEC 1360 TNF/G triple pass rotary dryers and (2) TSI Single Pass rotary dryers	240 MMBtu/hr & 132,000 OD lb/hr output	Geoenergy WESPs in series with RTOs	DC1A, DC1B, DC1C, DC1D, & RTO-1, RTO-2, RTO-4, & RTO-5	Products of Wood Combustion plus Additional PM and VOC from Process	Note 3
GB	S6	Natural Gas Fired Backup Thermal Oil Heater	40 MMBtu/hr	---	---	Products of Natural Gas Combustion	Note 3
BF	S2	Blending & PS&E Forming line	180,000 OD lb/hr output	MAC 144MCF572 fabric filter	DC2B	PM	Note 3
P	S5	Siempelkamp 8’ x 24’ x 14 opening Press	126,000 OD lb/hr output	Durr Environmental 5-can RTO	RTO-3	PM & VOC	Note 3
FSS	S3	Finish Sawing Convey	175 ft/min	MAC 144MCF494 fabric filter	DC3C	PM	Note 3
DC4C	S4	Unresinated Dust Handling System	71,000 acfm	MAC 144MCF572 fabric filter	DC4C	PM	Note 3

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity (Notes 1 & 2)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
SA2	S7	Six Head Sander	175 ft/min @ 8 ft wide & 0.008 ft depth	MAC 144MCF572 fabric filter	DC5	PM	Note 3
IA	IA	Brand Name Logo and Nail Mark Application System	(65) 4'x 8' panels per minute	---	---	VOC	Note 3
T2(a-g)	---	(7) Liquid Resin Storage Tanks	10,000 gal, each	---	---	VOC	Note 3

Notes:

1. The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
2. OD = Oven Dry
3. Permit date: October 16, 2007, as amended March 6, 2008

III. Process Equipment Requirements – (emission unit WY ~ Wood Yard)

A. Limitations for the Wood Yard (WY)

1. Particulate emissions from open storage of wood materials shall be controlled by wet suppression.
(9 VAC 5-80-110 and Condition 5 of October 16, 2007 Permit, as amended March 6, 2008)

2. Visible emissions from the wood yard (WY) operations shall not exceed ten percent (10%) opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). "Wood yard operations" are defined as sawing, debarking, and material handling of wood feed stock and storage of energy system fuels.
(9 VAC 5-80-110 and Condition 35 of October 16, 2007 Permit, as amended March 6, 2008)

B. Monitoring for the Wood Yard (WY)

1. At least one time per calendar week an observation of the presence of visible emissions from the wood yard (WY) operation shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the wood yard operation resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the affected area are 10 percent opacity or less. Timely corrective action shall be taken, if necessary, such that the equipment resumes operation within the 10 percent opacity limit

   c. If visible emission inspections conducted during four (4) consecutive weeks show no visible emissions the permittee may reduce the monitoring frequency to once per month for that emission unit. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

   The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the wood yard (WY) as defined in Condition III.A.2 has not been operated during the week, it shall be noted in the log book that the equipment was not operated and that a visual observation was not required.
   (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

C. Recordkeeping for the Wood Yard

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   b. Results of weekly or monthly opacity observations of the wood yard operation (WY), along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110)

IV. Process Equipment Requirements – (emission unit ES & D ~ Energy System and Dryers)

A. Limitations for the Energy System and Dryers (ES & D)

1. Four (4) Wet Electrostatic Precipitators (WESPs) followed by (3) Regenerative Thermal Oxidizers (RTOs) shall control particulate, VOC and carbon monoxide emissions from the wood-fired energy system, and the flake dryers. The WESPs and the RTOs shall be dispatched in accordance with the Attachment 1 to this permit, "WESP, and Dryer RTO Sequence of Operation." The minimum combustion chamber temperature for any dryer RTO shall be maintained at 1500 ^{O}F when that RTO is receiving exhaust gas from the mixing chamber and any dryer is processing flakes. For the purposes of this permit, "dryer RTO" means any of the following: RTO #1, RTO #2, RTO #4, or RTO #5, and the "mixing chamber" means the pressure equalization plenum located downstream of the WESPs and upstream of the dryer RTOs. The dryer exhaust gas shall have a minimum one and one half (1.5) second retention time in each RTO combustion chamber.

   The control efficiency for VOC shall be a minimum of 96.0 percent. Each WESP and each RTO shall be provided with adequate access for inspection.

   (9 VAC 5-80-110 and Condition 2 of October 16, 2007 Permit, as amended March 6, 2008)

2. The approved fuels for the wood-fired energy system (ES) are on-site generated wood, purchased wood and on-site generated wastes. "On-site generated wood" is defined as wood feed stock, bark, resinated and unresinated saw and sander dusts, and other wood wastes capable of being hogged. This definition does not include wood contaminated with paints, plastics, finishing material or chemical treatments.

"Purchased wood" is defined as clean wood and wood wastes which do not contain chemical treatments nor have affixed thereto paint and/or finishing materials or paper or plastic laminates or other foreign materials which might emit toxic air pollutants when burned. "On-site generated wastes" are defined as waste edge sealant from the clean up of the paint booths, waste wax and resin, paper products, WESP blowdown, and hydraulic and hot oil wastes. "Waste edge sealant" shall not include spray booth filters. "Waste wax and resin' includes both spillage and blender cleaning residue. "Paper products" are defined as cardboard, office paper, and kraft paper. "WESP blowdown" shall include both the liquid and solid fractions. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 8 of October 16, 2007 Permit, as amended March 6, 2008)

3. The wood-fired energy system (ES) shall consume no more than 233,600 tons per year of wood, 12 tons per year of waste edge seal, 40 tons per year of waste wax and resin, 365 tons per year of paper products, 0.26 x 10^6 cubic feet per year of WESP blowdown, and 5,000 gallons per year of hydraulic and hot oil wastes, each calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 11 of October 16, 2007 Permit, as amended March 6, 2008)

4. The annual throughput of the oven dried flakes through the four dryers combined shall not exceed 578,160 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 14 of October 16, 2007 Permit, as amended March 6, 2008)

5. Except where this permit is more restrictive than the applicable requirement, the wood fired energy system and the backup thermal oil heater shall be operated in compliance with the requirements of 40 CFR 60, Subpart Dc.
(9 VAC 5-80-110 and Condition 12 of October 16, 2007 Permit, as amended March 6, 2008)

6. Visible emissions from the stacks for RTO 1, RTO 2, RTO 4, and RTO 5, shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110, 40 CFR 60 Subpart Dc, and Condition 36 of October 16, 2007 Permit, as amended March 6, 2008)

7. Emissions from the operation of the wood-fired energy system, the flake dryers, and RTO 1, RTO 2, RTO 4, and RTO 5 shall not exceed the limits specified below:

	lbs/10^6 Btu	lbs/hr	tons/yr
Particulate Matter (Includes condensable PM)	---	11.80	51.7
(Filterable PM only)	0.04 (40CFR60 Subpart Dc)	---	---
PM-10 (Includes condensable PM)	---	11.80	51.7
Sulfur Dioxide	---	5.33	23.4
Nitrogen Oxides (as NO_2)	---	43.98	192.6
Carbon Monoxide	---	42.48	186.0
Volatile Organic Compounds	---	13.70	60.0

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition number IV.A.4.
(9 VAC 5-80-110, 40 CFR 60 Subpart Dc, and Condition 31 of October 16, 2007 Permit, as amended March 6, 2008)

8. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 and Condition 48 of October 16, 2007 Permit, as amended March 6, 2008)

9. See Section XIII of this permit for additional limitations for the Energy System and Dryers.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

B. Monitoring for the Energy System and Dryers (ES & D)

1. Each WESP shall be equipped with a device for the continuous measurement and recording of secondary current (direct current amperes) and secondary voltage (direct current volts) (by field) across the ESP.
   (9 VAC 5-80-110 and Condition 2 of October 16, 2007 Permit, as amended March 6, 2008)

2. Each RTO shall be equipped with a device for the continuous measurement and recording of the temperature in the combustion chamber.
   (9 VAC 5-80-110 and Condition 2 of October 16, 2007 Permit, as amended March 6, 2008)

3. Continuous emission monitors shall be installed on the stacks for RTO 1, RTO 2, RTO 4, and RTO 5 to measure and record opacity. The continuous emissions monitoring systems shall conform to the design specifications stipulated in 40 CFR 60, Appendix B, Performance Specification 1. The monitoring systems shall be installed, maintained, evaluated, calibrated and operated in accordance with 40 CFR 60.13, 40 CFR 60 Subpart Dc and 40 CFR 60, Appendix B. During all periods of facility operation, the monitoring systems shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments.

   After the initial performance evaluation, the permittee shall conduct opacity monitoring system audits, on a regularly scheduled basis, to demonstrate compliance with the calibration error specification (40 CFR 60, Appendix B, Performance Specification 1). In no case shall the length of time between audits exceed twelve months. Prior to the first scheduled audit for RTO5, the permittee shall submit the proposed audit procedures for the opacity monitoring system to the South Central Regional Office for approval. A 30-day notification prior to each scheduled audit shall be submitted to the South Central Regional Office.

   The permittee shall submit a report of monitored excess emissions and monitor performance semiannually. The reports are to be submitted, postmarked no later than 30 calendar days after the end of each semiannual period to the South Central Regional Office.
   (9 VAC 5-80-110, 40 CFR 60 Subpart Dc, and Condition 27 of October 16, 2007 Permit, as amended March 6, 2008)

4. A Parameter Monitoring Systems (PMS), meeting the design specifications of 40 CFR Part 60, Appendix B, shall be installed to measure and record the emissions of carbon monoxide from the stacks for RTO 1, RTO 2, RTO 4, and RTO 5 in ppmvd corrected to 16% O_2. Except where otherwise indicated in this permit, each PMS shall be installed, calibrated, maintained, audited and operated in accordance with the

requirements of 40 CFR 60.13, and Appendices B and F or DEQ approved procedures which are equivalent to the requirements of 40 CFR 60.13 and Appendices B and F. Data shall be reduced to one hour averages.
(9 VAC 5-80-110 and Condition 28 of October 16, 2007 Permit, as amended March 6, 2008)

5. A PMS quality control program which is equivalent to the requirements of 40 CFR 60.13 and Appendix F shall be implemented for each parameter monitoring systems except that Relative Accuracy Test Audits (RATA's) may be required less frequently if approved by DEQ.
(9 VAC 5-80-110 and Condition 30 of October 16, 2007 Permit, as amended March 6, 2008)

6. See Section XIII of this permit for additional monitoring requirements for the Energy System and Dryers.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

7. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the RTOs controlling CO from the ES&D. For the purposes of this permit, CO from the flake drying process is referred to as "PSEU 2:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 2) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or (3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

8. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the RTOs controlling VOC from the ES&D. For the purposes of this permit, VOC from the flake drying process is referred to as "PSEU 3:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 3) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or (3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

9. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the RTOs controlling PM10 from the ES&D. For the purposes of this permit, PM10 from the flake drying process is referred to as "PSEU 4:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 4) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement

Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or (3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

10. See Section XIV of this permit, for additional CAM requirements for PSEU 2, PSEU 3 and PSEU 4 including their Quality Improvement Plan thresholds.
(9 VAC 5-80-110 E and 40 CFR 64)

C. Recordkeeping for the Energy System and Dryers (ES & D)

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The daily and yearly consumption by the wood-fired energy system of wood, waste edge sealant, wax spillage, resin spillage, paper products, each in units of tons, and the daily and yearly consumption of WESP blowdown, and hydraulic and hot oil wastes, each in units of gallons. Each of these yearly consumption rates shall be calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
   (40 CFR 60 Subpart Dc)

   b. The yearly throughput of the flake dryers, in units of oven dried tons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   c. Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the energy system; any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

   d. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   e. Copies of secondary current and voltage monitoring records for each WESP.

   f. Copies of combustion chamber temperature monitoring records for each RTO.

   g. Copies of semiannual excess emission reports required in Condition IV.B.3.

   h. Copy of stack test results required in Condition IV.E.1.

i. For the stacks for RTO 1, RTO 2, RTO 4, and RTO 5:

(1) The magnitude of carbon monoxide emissions, any conversion factors used in the calculation of carbon monoxide emissions, including the date and time of measurement;

(2) Specific identification of each period of carbon monoxide emissions that occurs during startups, shutdowns, and malfunctions of the process, the nature and cause of the malfunction (if known), the corrective action taken or preventative measures adopted; and

(3) The date and time identifying each period during which the parameter monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments;

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110, 40 CFR 60 Subpart Dc, and Condition 43.a, 43.b, 43.i, and 43.j of October 16, 2007 Permit, as amended March 6, 2008)

2. See Section XIII and Section XIV of this permit for additional recordkeeping requirements for the Energy System and Dryers.
(9 VAC 5-80-110, 40 CFR 64, and 40 CFR 63 Subpart DDDD)

D. Reporting for the Energy System and Dryers (ES & D)

1. There are additional unit specific applicable requirements for reporting for this emission unit in Condition IV.B.3.

2. See Section XIII and Section XIV of this permit for additional reporting requirements for the Energy System and Dryers.
(9 VAC 5-80-110, 40 CFR 64, and 40 CFR 63 Subpart DDDD)

E. Testing for the Energy System and Dryers (ES & D)

1. At a frequency of at least once every five years, the permittee shall conduct a stack test to demonstrate compliance with the pound per hour and pound per million BTU emission limits contained in Condition IV.A.7 of this permit. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30. The details of the tests shall be arranged with the South Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the South Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110 and 9 VAC 5-50-30)

2. See Section XIII of this permit for additional testing requirements for the Energy System and Dryers.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

V. Process Equipment Requirements – (emission unit GB ~ 40 MMBtu/hr Backup Thermal Oil Heater)

A. Limitations for the Backup Thermal Oil Heater (GB)

1. The approved fuels for the backup thermal oil heater are natural gas and propane. A change in the fuel may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 9 of October 16, 2007 Permit, as amended March 6, 2008)

B. Monitoring for the Backup Thermal Oil Heater (GB)

1. At least one time per calendar week an observation of the presence of visible emissions from the backup thermal oil heater stack (S6) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the back up thermal oil heater stack (S6) resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the back up thermal oil heater stack (S6), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the affected stack are 20 percent opacity or less. If any of the 15-second observations exceed 20 percent opacity, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the fuel burning equipment resumes operation within the 20 percent opacity limit.

   c. If visible emission inspections conducted during four (4) consecutive weeks show no visible emissions the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

   The permittee shall maintain a stack observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the fuel burning equipment has not been operated during the week, it shall be noted in the log book that the equipment was not operated and that a visual observation was not required.
   (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

C. Recordkeeping for the Backup Thermal Oil Heater (GB)

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The permittee shall maintain records of the monthly and yearly consumption by the Energy System's backup thermal oil heater of natural gas in units of cubic feet, and propane in units of gallons. Each yearly consumption rate shall be calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
   (40 CFR 60 Subpart Dc)

   b. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   c. Results of weekly or monthly opacity observations of the backup thermal oil heater (GB), along with details regarding any necessary corrective actions.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110, 40 CFR 60 Subpart Dc, and Condition 43.k of October 16, 2007 Permit, as amended March 6, 2008)

VI. Process Equipment Requirements – (emission unit BF ~ Blending and Forming)

A. Limitations for Blending and Forming (BF)

1. Particulate emissions from the resinated dust handling system shall be controlled by a fabric filter (DC2B).
   (9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. The annual throughput of the oven dried flakes through the three blenders combined shall not exceed 551,976 tons per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
   (9 VAC 5-80-110 and Condition 15 of October 16, 2007 Permit, as amended March 6, 2008)

3. The annual throughput of the powdered resin shall not exceed 10,442 tons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 17 of October 16, 2007 Permit, as amended March 6, 2008)

4. Visible emissions from the resinated dust handling system's fabric filter (DC2B) shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 37 of October 16, 2007 Permit, as amended March 6, 2008)

5. Emissions from the operation of the resinated dust handling system (DC2B) shall not exceed the limits specified below:

	gr/dscf	lbs/hr	tons/yr
Particulate Matter & PM-10	For limits see Condition VI.A.6		
Volatile Organic Compounds	---	18.90	58.0

The VOC emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the VOC emission limits may be determined as stated in Condition VI.A.2.
(9 VAC 5-80-110 and Condition 32 of October 16, 2007 Permit, as amended March 6, 2008)

6. Emissions from the operation of the resinated dust handling system (DC2B) shall not exceed the limits specified below:

	gr/dscf	lbs/hr	tons/yr
Particulate Matter	0.01	---	16.10
PM-10	0.01	---	16.10
VOC	For limits see Condition VI.A.5		

(9 VAC 5-80-110, and Condition 34 of October 16, 2007 Permit, as amended March 6, 2008)

7. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

b. Maintain an inventory of spare parts.

c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110 and Condition 48 of October 16, 2007 Permit, as amended March 6, 2008)

B. Monitoring for Blending and Forming (BF)

1. The fabric filter (DC2B) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating**.**
(9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter (DC2B) controlling PM10 from the resinated dust handling system. For the purposes of this permit, PM10 from this fabric filter is referred to as "PSEU 6A:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 6) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or (3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

3. See Section XIV of this permit, for additional CAM requirements for PSEU 6A including their Quality Improvement Plan thresholds.
(9 VAC 5-80-110 E and 40 CFR 64)

C. Recordkeeping for Blending and Forming (BF)

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The yearly throughput of the blenders, in units of oven dried tons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   b. The yearly throughput of powdered resin, in units of tons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   c. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110 and Conditions 43.c, and 43.e of October 16, 2007 Permit, as amended March 6, 2008)

2. See Section XIV of this permit for additional recordkeeping and reporting requirements for Blending and Forming.
   (9 VAC 5-80-110 and 40 CFR 64)

D. Testing for Blending and Forming (BF)

1. For the fabric filter (DC2B), the permittee shall conduct testing as specified in Condition XV.C.2 of this permit to satisfy the periodic monitoring requirement for VOC emissions
   (9 VAC 5-80-110)

VII. Process Equipment Requirements – (emission unit P ~ Press)

A. Limitations for the Press (P)

1. Emissions from the press (P) shall be captured by maintaining a negative pressure within the press enclosure room. The negative pressure shall be maintained by work practices, including but not limited to, the closing of man doors, hatchways, bay doors, and other similar openings used for access purposes, at all times during operation of the press, except during short periods when the opening is being used for its intended purpose, such as personnel ingress/egress from the building. Particulate

and VOC emissions from the press shall be controlled by a Regenerative Thermal Oxidizer (RTO #3). The minimum combustion chamber temperature for the RTO #3 shall be maintained at 1500 ^{O}F when the press is processing panels. The exhaust gas from the press shall have a minimum one (1) second retention time in the combustion chamber. The RTO #3 shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 3 of October 16, 2007 Permit, as amended March 6, 2008)

2. The annual throughput of the oven dried flakes through the press shall not exceed 551,976 tons per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 16 of October 16, 2007 Permit, as amended March 6, 2008)

3. Visible emissions from the stack for RTO #3 shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 36 of October 16, 2007 Permit, as amended March 6, 2008)

4. Emissions from the operation of the press (P) shall not exceed the limits specified below:

	lbs/hr	tons/yr
Particulate Matter (includes condensable PM)	4.16	18.2
PM-10 (includes condensable PM)	4.16	18.2
Nitrogen Oxides (as NO_2)	4.10	17.9
Carbon Monoxide	0.32	1.4
Volatile Organic Compounds	1.08	4.7

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition VII.A.2.
(9 VAC 5-80-110 and Condition 33 of October 16, 2007 Permit, as amended March 6, 2008)

5. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 and Condition 48 of October 16, 2007 Permit, as amended March 6, 2008)

6. See Section XIII of this permit for additional limitations for the Press.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

B. Monitoring for the Press (P)

1. The RTO #3 shall be equipped with a device for the continuous measurement and recording of the temperature in the combustion chamber.
   (9 VAC 5-80-110 and Condition 3 of October 16, 2007 Permit, as amended March 6, 2008)

2. At least one time per calendar week an observation of the presence of visible emissions from the press stack (S5) shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the press stack (S5) resumes operation with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE) on the press stack (S5), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the affected stack are 10 percent opacity or less. If any of the 15-second observations exceed 10 percent opacity, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be

taken, if necessary, such that the equipment resumes operation within the 10 percent opacity limit.

c. If visible emission inspections conducted during four (4) consecutive weeks show no visible emissions the permittee may reduce the monitoring frequency to once per month for that stack. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

The permittee shall maintain a stack observation log for the press stack (S5) to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the press has not been operated during the week, it shall be noted in the log book that the equipment was not operated and that a visual observation was not required.
(9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

3. See Section XIII of this permit for additional monitoring requirements for the Press.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

4. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the RTO controlling VOC from the Press. For the purposes of this permit, VOC from the pressing process is referred to as "PSEU 5:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 5) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or (3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

5. See Section XIV of this permit, for additional CAM requirements for PSEU 5 including their Quality Improvement Plan thresholds.
(9 VAC 5-80-110 E and 40 CFR 64)

C. Recordkeeping for the Press (P)

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

a. The yearly throughput of the press, in units of oven dried tons per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

b. Copies of combustion chamber temperature monitoring records for the RTO.

c. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

d. Results of weekly or monthly opacity observations of the press (P), along with details regarding any necessary corrective actions.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 43.d of October 16, 2007 Permit, as amended March 6, 2008)

2. See Section XIII and Section XIV of this permit for additional recordkeeping requirements for the Press.
(9 VAC 5-80-110, 40 CFR 64, and 40 CFR 63 Subpart DDDD)

D. Reporting for the Press (P)

See Section XIII and Section XIV of this permit for reporting requirements for the Press.
(9 VAC 5-80-110, 40 CFR 64, and 40 CFR 63 Subpart DDDD)

E. Testing for the Press (P)

See Section XIII of this permit for testing requirements for the Press.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

VIII. Process Equipment Requirements – (emission unit FSS ~ Finish Sawing)

A. Limitations for Finish Sawing (FSS)

1. Particulate emissions from the saw dust handling systems (FSS) shall be controlled by a fabric filter (DC3C). .
(9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. Visible emissions from the saw dust handling system's fabric filter (DC3C) shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 37 of October 16, 2007 Permit, as amended March 6, 2008)

3. Emissions from the operation of the saw dust handling system (DC3C) shall not exceed the limits specified below:

	gr/dscf	lbs/hr	tons/yr
Particulate Matter	0.01	---	19.60

PM-10	0.01	---	19.60
VOC	---	7.56	33.1

(9 VAC 5-80-110 and Condition 34 of October 16, 2007 Permit, as amended March 6, 2008)

4. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 and Condition 48 of October 16, 2007 Permit, as amended March 6, 2008)

B. Monitoring for Finish Sawing (FSS)

1. The fabric filter (DC3C) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating**.**
   (9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter (DC3C) controlling PM10 from the saw dust handling system (FSS). For the purposes of this permit, PM10 from this fabric filter is referred to as “PSEU 6B:” with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan

(Attachment 6) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or (3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

3. See Section XIV of this permit, for additional CAM requirements for PSEU 6B including their Quality Improvement Plan thresholds.
(9 VAC 5-80-110 E and 40 CFR 64)

C. Recordkeeping for Finish Sawing (FSS)

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit, including recordkeeping and reporting requirements Section XIV. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to the origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and 40 CFR 64)

D. Testing for Finish Sawing (FSS)

1. For the fabric filter (DC3C), the permittee shall conduct testing as specified in Condition XV.C.2 of this permit to satisfy the periodic monitoring requirement for VOC emissions.
(9 VAC 5-80-110)

IX. Process Equipment Requirements – (emission unit DC4C ~ Unresinated Dust Handling System)

A. Limitations for Unresinated Dust Handling System (DC4C)

1. Particulate emissions from the unresinated dust handling system (DC4C) shall be controlled by a fabric filter (DC4C).
(9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. Visible emissions from the unresinated dust handling system's fabric filter (DC4C) shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 37 of October 16, 2007 Permit, as amended March 6, 2008)

3. Emissions from the operation of the unresinated dust handling system (DC4C) shall not exceed the limits specified below:

	gr/dscf	lbs/hr	tons/yr
Particulate Matter	0.01	---	24.85
PM-10	0.01	---	24.85
VOC	---	9.36	41.0

(9 VAC 5-80-110 and Condition 34 of October 16, 2007 Permit, as amended March 6, 2008)

4. At all times, including periods of start-up, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate the affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions.

   a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.

   b. Maintain an inventory of spare parts.

   c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

   d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures prior to their first operation of such equipment. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

   Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
   (9 VAC 5-80-110 and Condition 48 of October 16, 2007 Permit, as amended March 6, 2008)

B. Monitoring for the Unresinated Dust Handling System (DC4C)

1. The fabric filter (DC4C) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating**.**
   (9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter (DC4C) controlling PM10 from the unresinated dust handling system. For the purposes of this permit, PM10 from this fabric filter is referred to as "PSEU 6C:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 6) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or (3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

3. See Section XIV of this permit, for additional CAM requirements for PSEU 6C including their Quality Improvement Plan thresholds.
(9 VAC 5-80-110 E and 40 CFR 64)

C. Recordkeeping for the Unresinated Dust Handling System (DC4C)

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit, including recordkeeping and reporting requirements Section XIV. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to the origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

D. Testing for Unresinated Dust Handling System (DC4C)

1. For the fabric filter (DC4C), the permittee shall conduct testing as specified in Condition XV.C.2 of this permit to satisfy the periodic monitoring requirement for VOC emissions
(9 VAC 5-80-110)

X. Process Equipment Requirements – (emission unit SA2 ~ Six Head Sander)

A. Limitations for Six Head Sander (SA2)

1. Particulate emissions from the six head sander (SA2) shall be controlled by a fabric filter (DC5).
(9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. Fugitive dust emission controls shall include the following, or equivalent, as a minimum:

a. Dust from material handling and load-out from the six-head sander fabric filter shall be controlled by wet suppression or equivalent (as approved in writing by the DEQ).

b. All material from the six-head sander fabric filter being stockpiled shall be kept adequately moist to control dust during storage and handling or covered at all times to minimize emissions.

(9 VAC 5-80-110 and Condition 6 of October 16, 2007 Permit, as amended March 6, 2008)

3. The throughput of Oriented Strandboard shall not exceed 522 x 10^6 ft^2 per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 20 of October 16, 2007 Permit, as amended March 6, 2008)

4. Emissions from the operation of the six head sander (SA2) shall not exceed the limits specified below:

	gr/dscf	lbs/hr	tons/yr
Particulate Matter	0.01	---	17.4
PM-10	0.01	---	14.8
VOC	---	7.29	21.1

(9 VAC 5-80-110 and Condition 34 of October 16, 2007 Permit, as amended March 6, 2008)

5. Visible emissions from the six head sander fabric filter (DC5) shall not exceed 5 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 37 of October 16, 2007 Permit, as amended March 6, 2008)

6. Visible emissions from the six head sander material handling, load-out, and storage shall not exceed 10 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.
(9 VAC 5-80-110 and Condition 38 of October 16, 2007 Permit, as amended March 6, 2008)

B. Monitoring for Six Head Sander (SA2)

1. The fabric filter (DC5) shall be equipped with a device to continuously measure the differential pressure drop across the fabric filter. The monitoring device shall be

installed, maintained, calibrated, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the fabric filter is operating.
(9 VAC 5-80-110 and Condition 4 of October 16, 2007 Permit, as amended March 6, 2008)

2. At least one time per calendar week an observation of the presence of visible emissions from the six head sander material handling, load-out, and storage operations shall be made. The presence of visible emissions shall require the permittee to:

   a. take timely corrective action such that the affected operation functions with no visible emissions, or,

   b. conduct a visible emission evaluation (VEE), in accordance with EPA Method 9 (reference 40 CFR 60, Appendix A) for a minimum of six (6) minutes, to assure visible emissions from the affected area are 10 percent opacity or less. If any of the 15-second observations exceed 10 percent opacity, the observation period shall continue until a total of sixty (60) minutes of observation have been completed. Timely corrective action shall be taken, if necessary, such that the equipment resumes operation within the 10 percent opacity limit.

   c. If visible emission inspections conducted during four (4) consecutive weeks show no visible emissions the permittee may reduce the monitoring frequency to once per month for that emission unit. Anytime the monthly visible emissions inspections show visible emissions, or when requested by DEQ, the monitoring frequency shall be increased to once per week.

   The permittee shall maintain an observation log to demonstrate compliance. The log shall include the date and time of the observations, whether or not there were visible emissions, the results of all VEEs, any necessary corrective action, and the name of the observer. If the six head sander material handling, loadout, and storage equipment has not been operated during the week, it shall be noted in the log book that the equipment was not operated and that a visual observation was not required.
   (9 VAC 5-80-110 E and 9 VAC 5-80-110 K)

3. The permittee shall implement an approved Compliance Assurance Monitoring (CAM) Plan to monitor the fabric filter (DC5) controlling PM10 from the six head sander. For the purposes of this permit, PM10 from this fabric filter is referred to as "PSEU 6D:" with the acronym PSEU standing for Pollutant Specific Emissions Unit. The approved monitoring plan shall be the attached CAM Plan (Attachment 6) or the most recent revision to this plan that has been: (1) developed and approved pursuant to 40 CFR 64.7(e) and Condition XIV.7; (2) revised pursuant to a Quality Improvement Plan in accordance with 40 CFR 64.8 and Condition XIV.8; or

(3) otherwise approved by the DEQ conforming with Condition XIV.1, including, but not limited to, changes initiated by DEQ.
(9 VAC 5-80-110 and 40 CFR 64.6(c))

4. See Section XIV of this permit, for additional CAM requirements for PSEU 6D including their Quality Improvement Plan thresholds.
(9 VAC 5-80-110 E and 40 CFR 64)

C. Recordkeeping for the Six Head Sander (SA2)

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. The annual throughput of Oriented Strandboard, in units of square feet per year, through the six head sander (SA2), calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

   b. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

   c. Results of weekly or monthly opacity observations of the six head sander material handling, load-out, and storage operations along with details regarding any necessary corrective actions.

   d. Records and reports required in Section XIV.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
   (9 VAC 5-80-110, 40 CFR 64, and Condition 43.l of the October 16, 2007)

D. Testing for Six Head Sander (SA2)

1. For the fabric filter (DC5), the permittee shall conduct testing as specified in Condition XV.C.2 of this permit to satisfy the periodic monitoring requirement for VOC emissions
(9 VAC 5-80-110)

XI. Process Equipment Requirements – (emission unit IA ~ Brand Name Logo and Nail Mark Application System)

A. Limitations for Brand Name Logo and Nail Mark Application System (IA)

1. Fugitive VOC emission controls for the brand name logo and nail mark application system shall include the following, or equivalent, as a minimum:

   a. Volatile organic compounds shall not be intentionally spilled, discarded to sewers which are not connected to a treatment plant, stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.

   (9 VAC 5-80-110 and Condition 7 of October 16, 2007 Permit, as amended March 6, 2008)

2. Visible emissions from the brand name logo and nail mark application system shall not exceed 5 percent as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
   (9 VAC 5-80-110 and Condition 39 of October 16, 2007 Permit, as amended March 6, 2008)

3. See Section XIII of this permit for additional limitations for the brand name logo and nail mark application system.
   (9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

B. Monitoring for Brand Name Logo and Nail Mark Application System (IA)

See Section XIII of this permit for monitoring requirements for the brand name logo and nail mark application system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

C. Recordkeeping for Brand Name Logo and Nail Mark Application System (IA)

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

   a. A monthly and annual material balance of VOC (in tons) for the brand name logo and nail mark application system including inks and cleaners. Annual emissions shall be calculated monthly as the sum of each consecutive 12 month period. The consecutive 12-month period sum shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. It should be noted that t-butyl acetate is a VOC for purposes of all recordkeeping, emission reporting, photochemical dispersion modeling and inventory requirements that apply to VOCs and shall be uniquely identified in emission reports. However, t-butyl acetate is not a VOC for purposes of VOC emission standards, VOC emission limitations, or VOC content requirements.

   b. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 43.m of October 16, 2007 Permit, as amended March 6, 2008)

2. See Section XIII of this permit for additional recordkeeping requirements for the brand name logo and nail mark application system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

D. Reporting for Brand Name Logo and Nail Mark Application System (IA)
See Section XIII of this permit for reporting requirements for the brand name logo and nail mark application system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

E. Testing for Brand Name Logo and Nail Mark Application System (IA)
See Section XIII of this permit for testing requirements for the brand name logo and nail mark application system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDD)

XII. Process Equipment Requirements – (emission units T2(a-g) ~ Liquid Resin Storage Tanks)

A. Limitations for Liquid Resin Storage Tanks (T2a, T2b, T2c, T2d, T2e, T2f, and T2g)

1. The annual throughput of the phenol formaldehyde liquid resin shall not exceed 7.52 x 10^6 gallons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 18 of October 16, 2007 Permit, as amended March 6, 2008)

2. The annual throughput of the MDI liquid resin shall not exceed 4.96 x 10^6 gallons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 19 of October 16, 2007 Permit, as amended March 6, 2008)

B. Recordkeeping for Liquid Resin Storage Tanks (T2a, T2b, T2c, T2d, T2e, T2f, and T2g)

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of

such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

a. The yearly throughput of phenol formaldehyde liquid resin, in units of gallons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

b. The yearly throughput of MDI liquid resin, in units of gallons per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

c. The origin and value of all emission factors for all pollutants relied upon for purposes of calculating actual emission rates and the equations used in these calculations.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110 and Condition 43.f, and 43.g of October 16, 2007 Permit, as amended March 6, 2008)

XIII. Plywood and Composite Wood Products (PCWP) MACT Requirements (40 CFR 63 Subpart DDDD)

A. PCWP MACT- General

This section of this permit is for the implementation of the National Emission Standards for Hazardous Air Pollutants (NESHAP): Plywood and Composite Wood Products (PCWP), 40 CFR 63 Subpart DDDD, referred to as the PCWP MACT. Except where this permit is more restrictive, the permittee shall comply with the requirements of 40 CFR 63 Subpart DDDD.

1. Table 10 of 40 CFR 63 Subpart DDDD shows which parts of the General Provisions in 40 CFR 63.1 through 63.13 apply to the permittee.
(9 VAC 5-80-110 and 40 CFR 63.2290)

2. Terms used in Section XIII of this permit are defined in the Clean Air Act (CAA), in 40 CFR 63.2, the General Provisions, and in 40 CFR 63.2292.
(9 VAC 5-80-110 and 40 CFR 63.2292)

3. The permittee must comply with the compliance options, operating requirements, and work practice requirements no later October 1, 2007.
(9 VAC 5-80-110 and 40 CFR 63.2233(b))

B. PCWP MACT Limitations

1. The permittee must use an emission control system and demonstrate that the resulting emissions meet the compliance options and operating requirements of in Tables 1B and 2 of 40 CFR 63 Subpart DDDD.

   a. For the Energy System and Dryers the requirements of Table 1B are as follows:

      (1) reduce emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), by 90 percent; or
      (2) limit emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), to 20 ppmvd; or
      (3) reduce methanol emissions by 90 percent; or
      (4) limit methanol emissions to less than or equal to 1 ppmvd if uncontrolled methanol emissions entering the control device are greater than or equal to 10 ppmvd; or
      (5) reduce formaldehyde emissions by 90 percent; or
      (6) limit formaldehyde emissions to less than or equal to 1 ppmvd if uncontrolled formaldehyde emissions entering the control device are greater than or equal to 10 ppmvd.

   b. For the Energy System and Dryers the requirements of Table 2 are as follows:

      The permittee must either maintain the 3-hour block average firebox temperature of each RTO above the minimum temperature established during the performance test or maintain the 3-hour block average THC concentration (from which methane may be subtracted) in the thermal oxidizer exhaust below the maximum concentration established during the performance test.

   c. For the Press the requirements of Table 1B are as follows:

      (1) reduce emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), by 90 percent; or
      (2) limit emissions of total HAP, measured as THC (as carbon, from which methane may be subtracted), to 20 ppmvd; or
      (3) reduce methanol emissions by 90 percent; or
      (4) limit methanol emissions to less than or equal to 1 ppmvd if uncontrolled methanol emissions entering the control device are greater than or equal to 10 ppmvd; or
      (5) reduce formaldehyde emissions by 90 percent; or
      (6) limit formaldehyde emissions to less than or equal to 1 ppmvd if uncontrolled formaldehyde emissions entering the control device are greater than or equal to 10 ppmvd.

   d. For the Press the requirements of Table 2 are as follows:

      The permittee must either maintain the 3-hour block average firebox temperature of each RTO above the minimum temperature established during the performance

test or maintain the 3-hour block average THC concentration (from which methane may be subtracted) in the thermal oxidizer exhaust below the maximum concentration established during the performance test.

Furthermore, if the permittee chooses to comply with one of the concentration-based compliance options for the control system outlet (presented as option numbers 2, 4, or 6 in Condition XIII.B.1.c) the permittee must have a capture device that either meets the definition of wood products enclosure in 40 CFR 63.2292 or achieves a capture efficiency of greater than or equal to 95 percent.

(9 VAC 5-80-110 and 40 CFR 63.2240(b))

2. The permittee must meet the work practice requirement in Tables 3 of 40 CFR 63 Subpart DDDD. For the group 1 miscellaneous coating operations, Table 3 requires that the permittee must use non-HAP coatings as defined in 40 CFR 63.2292.
(9 VAC 5-80-110 and 40 CFR 63.2241)

3. The permittee must be in compliance with the compliance options, operating requirements, and the work practice requirements in 40 CFR 63 Subpart DDDD at all times, except during periods of process unit or control device startup, shutdown, and malfunction; and prior to process unit initial startup. The compliance options, operating requirements, and work practice requirements do not apply during times when the process unit(s) subject to the compliance options, operating requirements, and work practice requirements are not operating, or during scheduled startup and shutdown periods, and during malfunctions. Startup and shutdown periods must not exceed the minimum amount of time necessary for these events.

   The permittee must always operate and maintain the affected source, including air pollution control and monitoring equipment, according to the provisions of 40 CFR 63.6(e)(1)(i).

   The permittee must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions of 40 CFR 63.6(e)(3).

   (9 VAC 5-80-110 and 40 CFR 63.2250)

4. The permittee must demonstrate initial compliance with each compliance option, operating requirement, and work practice requirement that applies to the permitted facility according to Tables 5 and 6 of 40 CFR 63 Subpart DDDD and according to 40 CFR 63.2260 through 40 CFR 63.2269.
(9 VAC 5-80-110 and 40 CFR 63.2260(b))

5. The permittee must conduct initial compliance demonstrations that do not require performance tests upon initial startup or no later than 30 calendar days after the compliance date that is specified for the permitted facility in Condition XIII.A.3, whichever is later.
(9 VAC 5-80-110 and 40 CFR 63.2261(b))

6. The permittee must demonstrate continuous compliance with the compliance options, operating requirements, and work practice requirements in 40 CFR 63.2240 and 63.2241 that apply to the permitted facility according to the methods specified in Tables 7 and 8 of 40 CFR 63 Subpart DDDD.
(9 VAC 5-80-110 and 40 CFR 63.2271(a))

C. PCWP MACT Monitoring

1. The permittee must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to paragraphs (a)(1) through (3) of 40 CFR 63.2269.
(9 VAC 5-80-110 and 40 CFR 63.2269(a))

2. For each temperature monitoring device, the permittee must meet the requirements in Condition XIII.C.1, and paragraphs (b)(1) through (6) of 40 CFR 63.2269.
(9 VAC 5-80-110 and 40 CFR 63.2269(b))

3. The permittee must monitor and collect data according to 40 CFR 63.2270.
(9 VAC 5-80-110 and 40 CFR 63.2270)

D. PCWP MACT Testing

1. To demonstrate initial compliance with the compliance options and operating requirements, the permittee must conduct performance tests and establish each site-specific operating requirement in Table 2 of 40 CFR 63 Subpart DDDD according to the requirements in 40 CFR 63.2262 and Table 4 of 40 CFR 63 Subpart DDDD.
(9 VAC 5-80-110 and 40 CFR 63.2260(a))

2. The permittee must conduct performance tests upon initial startup or no later than 180 calendar days after the compliance date that is specified for the permitted facility in Condition XIII.A.3 and according to 40 CFR 63.7(a)(2), whichever is later.
(9 VAC 5-80-110 and 40 CFR 63.2261(a))

3. The permittee must conduct each performance test according to the requirements in 40 CFR 63.7(e)(1), the requirements in paragraph (b) through (o) of 40 CFR 63.2262, and according to the methods specified in Table 4 of 40 CFR 63 Subpart DDDD.
(9 VAC 5-80-110 and 40 CFR 63.2262)

E. PCWP MACT Recordkeeping

1. The permittee must keep records the following records:

   a. A copy of each notification and report that the permittee submitted to comply with 40 CFR 63 Subpart DDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv).

   b. The records in 40 CFR 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

c. Records of performance test and performance evaluations as required in 40 CFR 63.10(b)(2)(viii).

(9 VAC 5-80-110 and 40 CFR 63.2282)

2. The permittee's records must be in a form suitable and readily available for expeditious review as specified in 40 CFR 63.10(b)(1).

As specified in 40 CFR 63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

The permittee must keep records on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record according to 40 CFR 63.10(b)(1). The permittee can keep the records offsite for the remaining 3 years.

(9 VAC 5-80-110 and 40 CFR 63.2283)

F. PCWP MACT Reporting

1. The permittee must report each instance in which the permitted facility did not meet each compliance option, operating requirement, and work practice requirement in Table 8 of 40 CFR 63 Subpart DDDD that applies to the permitted facility. These instances are deviations from the work practice requirements in 40 CFR 63 Subpart DDDD. These deviations must be reported according to the requirements in Condition XVIII.C.3.
(9 VAC 5-80-110 and 40 CFR 63.2271(b))

2. <u>NOTIFICATIONS</u>

a. The permittee must submit all of the notifications in 40 CFR 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) by the dates specified.

b. If the permittee is required to conduct a performance test, the permittee must submit a written notification of intent to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin as specified in 40 CFR 63.7(b)(1).

c. If the permittee is required to conduct a performance test, design evaluation, or other initial compliance demonstration as specified in Tables 4, 5, and 6 of 40 CFR 63 Subpart DDDD, the permittee must submit a Notification of Compliance Status as specified in 40 CFR 63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 or 6 of 40 CFR 63 Subpart DDDD that does not include a performance test, the permittee must submit the Notification of Compliance Status before the close of business on the 30th calendar day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Tables 5 and 6 of 40 CFR 63 Subpart DDDD that includes a performance test conducted according to the requirements in Table 4 of 40 CFR 63 Subpart DDDD, the permittee must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th calendar day following the completion of the performance test according to 40 CFR 63.10(d)(2).

d. The permittee must notify the Administrator within 30 days before you take any of the actions specified in paragraphs (g)(1) through (3) of 40 CFR 63.2280.

(9 VAC 5-80-110 and 40 CFR 63.2280)

3. REPORTS

a. The permittee must submit each report in Table 9 of 40 CFR 63 Subpart DDDD that applies to the permitted facility.

b. Unless the Administrator has approved a different schedule for submission of reports under 40 CFR 63.10(a), the permittee must submit each report by the date in Table 9 of 40 CFR 63 Subpart DDDD and as specified in paragraphs (b)(1) through (5) of 40 CFR 63.2281.

c. The compliance report must contain the information in paragraphs (c)(1) through (8) of 40 CFR 63.2281.

d. For each deviation from a compliance option or operating requirement and for each deviation from the work practice requirements in Table 8 of 40 CFR 63 Subpart DDDD that occurs at an affected source where the permittee is not using a CMS to comply with the compliance options, operating requirements, or work practice requirements in this subpart, the compliance report must contain the information in paragraphs (c)(1) through (6) of 40 CFR 63.2281 and in paragraphs (d)(1) and (2) of 40 CFR 63.2281. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.

e. For each deviation from a compliance option or operating requirement occurring at an affected source where the permittee is using a CMS to comply with the compliance options and operating requirements in this subpart, the permittee must include the information in paragraphs (c)(1) through (6) and paragraphs (e)(1) through (11) of 40 CFR 63.2281. This includes periods of startup, shutdown, and malfunction and routine control device maintenance.

f. Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 must report all deviations as defined in 40 CFR 63 Subpart DDDD in the semiannual monitoring report required by Condition XVIII.C.3. If an affected source submits a compliance report pursuant to Table 9 of 40 CFR 63 Subpart DDDD along with, or as part of, the semiannual monitoring report required by Condition XVIII.C.3, and the compliance report includes all required information

concerning deviations from any compliance option, operating requirement, or work practice requirement in this subpart, submission

of the compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report.

(9 VAC 5-80-110 and 40 CFR 63.2281)

XIV. General CAM Provisions

1. Each monitoring approach shall be designed and implemented in compliance with 40 CFR 64.3(b) or (d). If a monitoring approach uses a monitoring device, the device shall be operated according to manufacturer's specifications, unless other methods are approved, and in compliance with 40 CFR 64.3(b) or (d). The approved CAM Plan shall include, at a minimum, the following information:

   a. **Indicator**;
   b. **Measurement Approach**;
   c. **Indicator Range or Condition(s) for Range Development**; and
   d. The following **performance criteria**:
      i. **Data Representativeness**;
      ii. **Verification of Operational Status**;
      iii. **QA/QC Practices and Criteria**;
      iv. **Monitoring Frequency;**
      v. **Data Collection Procedures;** and
      vi. **Averaging Period**

   Changes to a CAM Plan pertaining to the information in this condition require prior approval by the DEQ and may require public participation according to the requirements of 9 VAC 5-80-230.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

2. The permittee shall conduct the monitoring and fulfill the other obligations specified in 40 CFR 64.7 through 40 CFR 64.9.
   (9 VAC 5-80-110 E and 40 CFR 64.6(c))

3. If a monitoring approach uses a monitoring device, at all times, the permittee shall maintain the monitoring equipment, including, but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.
   (9 VAC 5-80-110 E and 40 CFR 64.7(b))

4. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the PSEU is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of compliance assurance monitoring, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The permittee shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring

malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by inadequate maintenance or improper operation are not malfunctions.
(9 VAC 5-80-110 E and 40 CFR 64.7(c))

5. Upon detecting an excursion or exceedance, the permittee shall restore operation of the PSEU (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup and shutdown conditions). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator, designated condition, or below the applicable emission limitation or standard, as applicable.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(1))

6. Determination that acceptable procedures were used in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.
(9 VAC 5-80-110 E and 40 CFR 64.7(d)(2))

7. If the permittee identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the permittee shall promptly (in accordance with Condition XVIII.E) notify the South Central Regional Office and submit a revised CAM Plan for approval to the South Central Regional Office to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.
(9 VAC 5-80-110 E, 40 CFR 64.7(e), and 40 CFR 64.6(c))

8. For each PSEU, the Quality Improvement Plan (QIP) threshold shall be as shown in the following table:

PSEU			QIP Triggering Threshold
ID	Condition No.	Pollutant	
PSEU 2	IV.B.7	CO	5% for the operating time for flake drying system
PSEU 3	IV.B.8	VOC	5% for the operating time for flake drying system
PSEU 4	IV.B.9	PM10	5% for the operating time for flake drying system
PSEU 5	VII.B.4	VOC	5% for the operating time for press
PSEU 6 A PSEU 6 B PSEU 6 C PSEU 6 D	VI.B.2 VIII.B.2 IX.B.2 X.B.3	PM10	For any single fabric filter, 2 excursions in a 2 week period

For any PSEU, if the number of exceedances or excursions exceeds its threshold in the above table, or as otherwise required by the DEQ in accordance with review conducted under 40 CFR 64.7(d)(2), the permittee shall develop, implement and maintain a QIP in accordance with 40 CFR 64.8. If a QIP is required, the permittee shall have it available for inspection at the permitted facility. In the event that changes are made to a CAM Plan as a result of a QIP, the permittee shall record the revision date on Page 1 of the CAM Plan and monitor in accordance with the most recent CAM Plan. The permittee shall submit a copy of the most recent CAM Plan to the South Central Region within 30 days of the revision date. For the purposes of this condition, the most recent version of a CAM Plan shall be based on the date as shown on page 1 of the CAM Plan.
(9 VAC 5-80-110 E and 40 CFR 64.8(a) and (b))

9. Monitoring imposed under 40 CFR Part 64 shall not excuse the permittee from complying with any existing requirements under federal, state, or local law, or any other applicable requirement under the Act, as described in 40 CFR 64.10.
(9 VAC 5-80-110 and 40 CFR 64.10)

10. The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written QIP required pursuant to 40 CFR 64.8 and any activities undertaken to implement a QIP, and other supporting information required to be maintained under 40 CFR Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
(9 VAC 5-80-110 F and 40 CFR 64.9(b))

11. The permittee shall submit CAM reports for each PSEU as part of the Title V semi-annual monitoring reports required by Condition XVIII.C.3 of this permit to the South Central Regional Office. Each report shall include at a minimum:

    a. Identification of the PSEU for which the report is made;

b. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

c. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

d. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

(9 VAC 5-80-110 F and 40 CFR 64.9(a))

XV. Facility Wide Conditions

A. Facility Wide Limitations

1. The annual production of finished Oriented Strandboard shall not exceed 788.5 x 10^6 square feet per year, calculated monthly as the sum of each consecutive 12 month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. The rated square foot is based on a panel thickness of 3/8 inches.
(9 VAC 5-80-110 and Condition 21 of October 16, 2007 Permit, as amended March 6, 2008)

2. Visible emissions from other fugitive emission points shall not exceed ten percent (10%) opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and Condition 40 of October 16, 2007 Permit, as amended March 6, 2008)

3. Unless otherwise specified in this permit, visible emissions shall not exceed 20 percent opacity, except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110 and 9 VAC 5-50-80)

B. Facility Wide Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

a. The yearly production of finished Oriented Strandboard, in units of square feet per year, calculated monthly as the sum of each consecutive twelve (12) month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. The rated square footage shall be based on a panel thickness of 3/8 inches.

b. Annual hours of operation of the gasoline air compressor engine and gasoline generator (Ref. Nos. 64 and 72), the gasoline pressure washer engine (Ref. No. 65), the diesel generator engine (Ref. No. 66), the diesel fire pump engine (Ref. No. 67), the gasoline pressure washer engine (Ref. No. 70), the gasoline air compressor (Ref. No. 71), the Texton gasoline engines (Ref. Nos. 73 thru 76), gasoline pressure washer engine (Ref. No. 77), the gasoline water pumps (Ref. Nos. 78&79), and the gasoline pressure washer (Ref. No. 80) each calculated monthly as the sum of each consecutive 12 month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110, 9 VAC 5-80-100 and Condition 43.h of October 16, 2007 Permit, as amended March 6, 2008)

C. Facility Wide Testing

1. The permitted facility shall be constructed so as to allow for emissions testing and monitoring upon reasonable notice at any time, using appropriate methods. Sampling ports shall be provided when requested and safe sampling platforms and access shall be provided.
(9 VAC 5-80-110 and Condition 10 of October 16, 2007 Permit, as amended March 6, 2008)

2. At a frequency of at least once every five years, the permittee shall conduct a stack test from at least one of the fabric filters DC2B (Blending and Forming line), DC3C (Finish Sawing), DC4C (Unresinated Dust Handling System) or SA2 (Six Head Sander) to demonstrate compliance with the applicable hourly VOC emission limit contained in this permit. Unless otherwise requested by the South Central Regional Office, performance testing required by this condition shall not be repeated for a given fabric filter until all other fabric filter have been tested. The test shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 as applicable. The details of the tests shall be arranged with the South Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the South Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110 E and 9 VAC 5-50-30)

XVI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation [A]	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
1	Electrical A/C Heater Units	9 VAC 5-80-720 A	---	---
2	One (1) 1.26 MMBtu/hr Gas Fired Boiler	9 VAC 5-80-720 C	Natural Gas Combustion	1.26
3	Air Contaminant Detectors	9 VAC 5-80-720 A	---	---
4	Air Dryers	9 VAC 5-80-720 A	---	---
5	Bathroom Maintenance	9 VAC 5-80-720 A	---	---
6	Batteries	9 VAC 5-80-720 A	---	---
7	Battery Chargers	9 VAC 5-80-720 A	---	---
8	Blow Down for Cleaning Purposes	9 VAC 5-80-720 A	---	---
9	Blueprint Copier	9 VAC 5-80-720 A	---	---
10	Copiers	9 VAC 5-80-720 A	---	---
11	Crane Track Maintenance	9 VAC 5-80-720 A	---	---
12	Defoamer	9 VAC 5-80-720 A	---	---
13	Diesel Storage Tanks (for on-site vehicles and equipment)	9 VAC 5-80-720 A	VOC	---
14	Dumpsters	9 VAC 5-80-720 A	---	---
15	Edge Seal and Stencil Paint Totes	9 VAC 5-80-720 A	VOC	---
16	Electric Welders	9 VAC 5-80-720 A	---	---
17	Emergency Exit Lights with Battery	9 VAC 5-80-720 A	---	---
18	Emergency Lights with Battery	9 VAC 5-80-720 A	---	---
19	Exhaust Fans	9 VAC 5-80-720 A	---	---
20	Exhaust Vents	9 VAC 5-80-720 A	---	---
21	Forklifts - Propane Fired	9 VAC 5-80-720 A	---	---
22	Gas and Diesel Fired Welders	9 VAC 5-80-720 C	Natural Gas and Diesel Combustion	---
23	Gear Boxes	9 VAC 5-80-720 A	---	---
24	Golf Carts	9 VAC 5-80-720 A	---	---
25	Grinders	9 VAC 5-80-720 A	PM	---
26	Hydraulic Units	9 VAC 5-80-720 A	---	---
27	Loaders	9 VAC 5-80-720 A	---	---

Emission Unit No.	Emission Unit Description	Citation [A]	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
28	Manlifts	9 VAC 5-80-720 A	---	---
29	Natural Gas Space Heaters	9 VAC 5-80-720 A	Natural Gas Combustion	---
30	Natural Gas Regulator Vents	9 VAC 5-80-720 A	VOC	---
31	Paint Booths	9 VAC 5-80-720 A	---	---
32	Paint Sprayers	9 VAC 5-80-720 A	VOC	---
33	Parts Washer (water based)	9 VAC 5-80-720 A	---	---
34	Pens	9 VAC 5-80-720 A	---	---
35	Pneumatic Cylinders	9 VAC 5-80-720 A	---	---
36	Pneumatic Hand Tools	9 VAC 5-80-720 A	---	---
37	Pneumatic Valves	9 VAC 5-80-720 A	---	---
38	Portable Heaters - Comfort Heaters	9 VAC 5-80-720 A	---	---
39	Pressure Washers	9 VAC 5-80-720 C	Gasoline Combustion	Less than 7 hp, each
40	Printers	9 VAC 5-80-720 A	---	---
41	Propane Filling Systems	9 VAC 5-80-720 A	VOC	---
42	Propane Natural Gas Mixing Regulators - Vented	9 VAC 5-80-720 A	VOC	---
43	Propane Natural Gas Mixing Station	9 VAC 5-80-720 A	VOC	---
44	Propane Regulators	9 VAC 5-80-720 A	VOC	---
45	Radio Batteries	9 VAC 5-80-720 A	---	---
46	Raw Water Treatment	9 VAC 5-80-720 A	---	---
47	Release Agents Totes	9 VAC 5-80-720 A	---	---
48	Road Flares - Cases	9 VAC 5-80-720 A	---	---
49	Sand Blaster	9 VAC 5-80-720 A	PM	---
50	Sewer Line Vents	9 VAC 5-80-720 A	---	---
51	Shop Presses	9 VAC 5-80-720 A	---	---
52	Solvent Storage Cabinets	9 VAC 5-80-720 A	VOC	---
53	Steam Cleaners	9 VAC 5-80-720 A	---	---
54	Test Ports	9 VAC 5-80-720 A	---	---
55	Torches	9 VAC 5-80-720 A	---	---
56	Tractor	9 VAC 5-80-720 A	---	---
57	Vehicles	9 VAC 5-80-720 A	---	---
58	Water Filtration Systems	9 VAC 5-80-720 A	---	---
59	Water Tanks	9 VAC 5-80-720 A	---	---
60	Wax Tanks	9 VAC 5-80-720 A	---	300 gallons
61	WESP - Flush Tanks	9 VAC 5-80-720 A	---	---

Emission Unit No.	Emission Unit Description	Citation [A]	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
62	WESP - Recycling Tanks	9 VAC 5-80-720 A	---	---
63	WESP Settling Ponds	9 VAC 5-80-720 A	---	---
64	One 11 hp Gasoline Air Compressor Engine (See Note 1)	9 VAC 5-80-720 B	Gasoline Combustion	11 hp
65	One 18 hp Gasoline Pressure Washer Engine (See Note 2)	9 VAC 5-80-720 B	Gasoline Combustion	18 hp
66	749 hp Diesel Generator Engine (See Note 3)	9 VAC 5-80-720 B	Diesel Fuel Combustion	749 hp
67	208 hp Diesel Fire Pump Engine (See Note 4)	9 VAC 5-80-720 B	Diesel Fuel Combustion	208 hp
68	Above ground Propane storage tank (pressure vessel)	9 VAC 5-80-720 B	VOC	30,000 gallons
69	Above ground used-oil storage tank	9 VAC 5-80-720 B	VOC	2,200 gallons
70	One 16 hp Kohler Gasoline Pressure Washer Engine (See Note 5)	9 VAC 5-80-720 B	Gasoline Combustion	16 hp
71	One 12.5 hp Kohler Gasoline Air Compressor (See Note 6)	9 VAC 5-80-720 B	Gasoline Combustion	12.5 hp
72	One 11 hp Gasoline Wenling Jennfeng trailer mounted generator (See Note 1)	9 VAC 5-80-720 B	Gasoline Combustion	11 hp
73 thru 76	Four 9 hp Gasoline E-Z GO Texton (See Note 7)	9 VAC 5-80-720 A	Gasoline Combustion	9 hp
77	One 6.5 hp Gasoline Briggs & Stratton Pressure Washer Engine (See Note 8)	9 VAC 5-80-720 C	Gasoline Combustion	6.5 hp
78&79	Two 5.5 hp Gasoline Briggs & Stratton Water Pumps (See Note 9)	9 VAC 5-80-720 C	Gasoline Combustion	5.5 hp

Emission Unit No.	Emission Unit Description	Citation [A]	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
80	One 5.5 hp Gasoline Honda Pressure Washer (See Note 9)	9 VAC 5-80-720 C	Gasoline Combustion	5.5 hp
81	One above ground tank (hydraulic oil) in Press Hydraulic Room	9 VAC 5-80-720 B	VOC	1,000 gal
82	One above ground tank (unleaded gas) in Lube House	9 VAC 5-80-720 B	VOC	500 gal
83	One above ground tank (kerosene) in Lube House	9 VAC 5-80-720 B	VOC	500 gal
84	One above ground, double wall tank (hydraulic oil) in Press Hydraulic Room	9 VAC 5-80-720 B	VOC	1,000 gal
85	One above ground pressure vessel (nitrogen)	9 VAC 5-80-720 A	---	10,000 gal
86	One above ground pressure vessel (hydraulic oil/nitrogen)	9 VAC 5-80-720 A	---	8,000 gal
T1a, T1b	Two wax tanks (See note 10)	9 VAC 5-80-720 B	VOC	25,500 gal each
T3	Thermal Oil tank	9 VAC 5-80-720 B	VOC	14,000 gal
T4	Hydraulic Oil 68 tank	9 VAC 5-80-720 B	VOC	12,000 gal

Note 1 - Each 11 hp gasoline engine (Ref. No. 64 & 72) shall not operate more than 2,000 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 2 - The 18 hp gasoline pressure washer engine (Ref. No. 65) shall not operate more than 1,200 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 3 – The 749 hp diesel generator engine (Ref. No. 66) shall not operate more than 500 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 4 -The 208 hp diesel fire pump engine (Ref. No. 67) shall not operate more than 1,500 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 5 - The 16 hp gasoline engine (Ref. No. 70) shall not operate more than 1,400 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 6 - The 12.5 hp gasoline engine (Ref. No. 71) shall not operate more than 1,800 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 7 - Each 9 hp gasoline engine (Ref. No. 73 thru 76) shall not operate more than 2,500 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 8 - The 6.5 hp gasoline engine (Ref. No. 77) shall not operate more than 3,400 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 9 – Each 5.5 hp gasoline engine (Ref. No. 78 thru 80) shall not operate more than 4,100 hours per year, calculated monthly as the sum of each consecutive 12 month period. (9 VAC 5-80-100)

Note 10 – Wax has negligible vapor pressure per MSDS

[A] These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping (except as specified in Notes 1 through 9 above and Section XV.B.1.b.), or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

XVII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
No inapplicable requirements were identified		

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of

the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XVIII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.
   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

   b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

      (1) Exceedance of emissions limitations or operational restrictions;

      (2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or Compliance Assurance Monitoring (CAM) which indicates an exceedance of emission limitations or operational restrictions; or,

      (3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incidence of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

7. One copy of the annual compliance certification shall be sent to EPA at the following address:

   Clean Air Act Title V Compliance Certification (3AP00)
   U. S. Environmental Protection Agency, Region III
   1650 Arch Street
   Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the Director, South Central Region within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XVIII.C.3 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, South Central Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, South Central Region.
(9 VAC 5-20-180 C)

1. The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the 14 day written notification.

2. The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:

   a. The Energy System and Dryers (opacity monitors)

3. Each owner required to install a continuous monitoring system (CMS) or monitoring device subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable subpart in 9 VAC 5-50-410) and either a monitoring systems performance report or a summary report form, or both, to the board semiannually. All semi-annual reports shall be postmarked by the 30th day following the end of each calendar semi-annual period (June 30th and January 30th). All reports shall include the following information:

a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B.6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.
(9 VAC 5-20-180 C and 9 VAC 5-50-50)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9

VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20 E)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

   d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for

trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

BB. Violation of Ambient Air Quality Standard

The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.

(9 VAC 5-80-110 and Condition 47 of October 16, 2007 Permit, as amended March 6, 2008)

Attachment 1: WESP, and Dryer RTO Sequence of Operation

WESPs

When a dryer is processing flakes, the downstream WESP shall be operating.

Dryer RTOs

When one dryer is processing flakes, a minimum of one RTO shall be operating to control the dryer exhaust gas from the mixing chamber.

When two dryers are processing flakes, a minimum of two RTOs shall be operating to control the dryer exhaust gas from the mixing chamber.

When three or four dryers are processing flakes, a minimum of three RTOs shall be operating to control the dryer exhaust gas from the mixing chamber.

Huber Engineered Woods
Crystal Hill Mill

Heat Generation and Drying
Carbon Monoxide
Compliance Assurance Plan

Compliance Assurance Monitoring

Regenerative Thermal Oxidizer for CO: Crystal Hill Registration No. 30905

I. Background

A. Emission Unit:

Description:	Regenerative Thermal Oxidizers 1, 2, 4, & 5
Identification:	Stack No. S1A, S1B, S1C, and S1D
Stack designation:	Thermal Oxidizer
Registration ID No:	30905
Facility:	Huber Engineered Woods LLC Crystal Hill P. O. Box 38 1000 Chaney Lane Crystal Hill, VA 24539

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation No:	Permit Condition IV.A.7.
Regulated pollutant:	Carbon Monoxide
Emission Limit:	42.48 lb/hr

Monitoring requirements in permit:

Continuously monitor retention chamber temperature.
Continuously monitor CO concentration.
CO data will be corrected to 16% O2 Dry volume.

C. Control Technology: Regenerative Thermal Oxidizer

II. Monitoring Approach:

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table A.

III. Data Availability:

Data collection frequency: For large emission units, a measurement frequency of four data points each hour that the process is operating is required. The data availability determination does not include periods of control device start up and shut down or malfunction. For an hour to be considered a valid hour of monitoring data, a minimum of 45 minutes of data must be available.

Table A.

	Indicator No. 1	Indicator No. 2
I. Indicator Measurement Approach	Chamber Temperature The chamber temperature is monitored with multiple thermocouples and averaged for the monitored chamber temperature.	Outlet CO Concentration The CO concentration is measured with a CEMS meeting 40 CFR 60 Appendix B, Performance Specifications.
II. Indicator Range	An excursion is defined as temperature readings less than 1500 °F; excursions trigger an inspection, corrective action, and reporting.	An excursion is defined as a 1-hr average greater than 50 ppm; at 16% O2 DV. Excursions trigger an inspection, corrective action, and reporting.
III. Performance Criteria A. Data Representativeness	The sensors are located in the oxidizer retention chamber as a part of original design. The minimum tolerance of the thermocouple is + or – 0.75% of the actual temperature. The minimum chart recorder sensitivity (minor division) is 20 °F.	The system meets 40 CFR 60 Appendix B, Performance Specification 4 criteria.
B. Verification of Operational Status	RTO indicator light on the console is lit and all burners are fired.	The operator hourly check of equipment for indication of abnormal operation.
C. QA/QC Practices	Accuracy of the thermocouple will be verified by bench calibration before installation and semiannual preventative maintenance inspections.	Calibration drift will be automatically checked every 24 hours by zero air and span gas.
D. Monitoring Frequency	Measured continuously.	Measured continuously.
E. Data Collection Procedure	Recorded continuously on a circular chart recorder.	The average of four 15-minute readings recorded hourly and stored electronically and printed daily.
F. Averaging Period	No average is taken.	1-hour average of 4, 15-minute readings.

MONITORING APPROACH JUSTIFICATION

I Background

Huber Engineered Woods, LLC (Huber) operates an oriented strand board (OSB) manufacturing facility in Crystal Hill, Virginia under Title V Operating Permit No. VA-30905. Mixed pine and various southern hardwoods are received by truck, debarked, cut to length, flaked, conveyed to wet metering bins, and dried in one of four wood flake dryers operating in parallel. The dry flakes are collected in primary cyclones, fed to rotary screens for fines removal, and conveyed to dry bins. Heat energy is supplied directly to the dryers and indirectly to the press by a wood-fired Wellons energy system. Dryer emissions are controlled by wet electrostatic precipitators in series with regenerative thermal oxidizers (RTO).

II Rationale for Selection of Performance Indicators

The RTO retention chamber temperature was selected because it is indicative of the thermal destruction occurring within the equipment designed residence time. If the retention chamber temperature decreases significantly, the required destruction may not occur. The same is true with residence time. If the process air does not remain in the retention chamber a minimum of 1.5 seconds, the permit required destruction may not occur.

The CO concentration at the outlet of the thermal incinerator is a direct indicator of CO emissions.

III. Rationale for Selection of Indicator Ranges

A. Regenerative Thermal Oxidizer Temperature

The selected indicator range for the oxidizer retention chamber is “greater than 1500 degrees F at all times,” by permit condition. When an excursion occurs corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. Should the duration of a temperature excursion exceed 60 minutes, the VA DEQ will be notified and permit required documentation will be sent within the allotted timeframe.

Engineering testing in 2003 has shown the RTOs have the ability to destruct CO to levels below the permitted emission rate. During the engineering test, the RTO was operating with a temperature of at least 1500 degrees F (range 1550 to 1600 degrees F).

B. Outlet CO Concentrations

The selected indicator range for the 1-hour average CO concentration is “less than 50 ppmvd as measured, corrected to 16% O2.” When, an excursion occurs corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct, the situation. All excursions will be documented and reported as required by permit conditions.

Review of the historical monitoring data indicates that the 50 ppmvd CO concentration limit can be maintained on a routine basis with few excursions when two RTOs are online.

Huber Engineered Woods
Crystal Hill Mill

Heat Generation and Drying
Volatile Organic Compounds
Compliance Assurance Plan

Compliance Assurance Monitoring

Regenerative Thermal Oxidizer for VOC: Crystal Hill Registration No. 30905

I. Background

A. Emissions Unit:

Description:	Regenerative Thermal Oxidizers 1, 2, and 4, and 5
Identification:	Stack No. S1A, S1B S1C and S1D
Stack designation:	Thermal Oxidizer
Registration ID No:	30905
Facility:	Huber Engineered Woods LLC Crystal Hill P. O. Box 38 1000 Chaney Lane Crystal Hill, VA 24539

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation No: Permit Condition IV.A.7

Regulated pollutant: VOC
Emission Limit: 13.7 lb/hr

Monitoring requirements in permit
Continuously monitor retention chamber temperature.

C. Control Technology: Regenerative Thermal Oxidizer

II. Monitoring Approach:

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table A.

III. Data Availability:

Data collection frequency: For large emission units, a measurement frequency of four data points each hour that the process is operating is required. The data availability determination does not include periods of control device start up and shut down or malfunction. For an hour to be considered a valid hour of monitoring data, a minimum of 45 minutes of data must be available.

Table A.

	Indicator No. 1
I. Indicator Measurement Approach	Chamber Temperature The chamber temperature is monitored with multiple thermocouples and averaged for the monitored chamber temperature.
IV. Indicator Range	An excursion is defined as temperature readings less than 1500 °F; excursions trigger an inspection, corrective action, and reporting.
V. Performance Criteria A. Data Representativeness	 The sensors are located in the oxidizer retention chamber as a part of original design. The minimum tolerance of the thermocouple is + or – 0.75% of the actual temperature. The minimum chart recorder sensitivity (minor division) is 20 °F.
B. Verification of Operational Status	RTO indicator light on the console is lit and all burners are fired.
C. QA / QC Practices	Accuracy of the thermocouple will be verified by calibration before final installation and semiannual preventative maintenance inspections. See Environmental Work Instruction for RTO Thermocouple Calibration and Replacement.
D. Monitoring Frequency	Measured continuously. A operator monitors an HIM screen and a blue light located on the operator console. Should the temperature drop below 1500 degrees F. an alarm is generated on the operator's screen and the blue light on the console goes off alerting the operator of a malfunction event.
E. Data Collection Procedure	Recorded continuously on a circular chart recorder.
F. Averaging Period	No average is taken.

MONITORING APPROACH JUSTIFICATION

I Background

Huber Engineered Woods, LLC (Huber) operates an oriented strand board (OSB) manufacturing facility in Crystal Hill, Virginia under Title V Operating Permit No. VA-30905. Mixed pine and various southern hardwoods are received by truck, debarked, cut to length, flaked, conveyed to wet metering bins, and dried in one of four wood flake dryers operating in parallel. The dry flakes are collected in primary cyclones, fed to rotary screens for fines removal, and conveyed to dry bins. Heat energy is supplied directly to the dryers and indirectly to the press by a wood-fired Wellons energy system. Dryer emissions are controlled by wet electrostatic precipitators in series with regenerative thermal oxidizers (RTO). During operation of the Drying system there will be three RTOs taking solvents with one RTO offline in a stand-by mode.

II Rationale for Selection of Performance Indicators

The RTO retention chamber temperature was selected because it is indicative of the thermal destruction occurring within the equipment designed residence time. If the retention chamber temperature decreases significantly, the required destruction may not occur. The same is true with residence time. If the process air does not remain in the retention chamber a minimum of 1.5 seconds, the permit required destruction may not occur.

III. Rationale for Selection of Indicator Ranges

Regenerative Thermal Oxidizer Temperature

The selected indicator range for the oxidizer retention chamber is “greater than 1500 degrees F at all times,” by permit condition. When an excursion occurs corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation.
Should the duration of a temperature excursion exceed 5 minutes, the VA DEQ will be notified and permit required documentation will be sent within the allotted timeframe.

Engineering testing in 2003 has shown the RTOs have the ability to destruct VOC to levels below the permitted emission rate. During the engineering test, the RTO was operating with a temperature of at least 1500 degrees F (range 1550 to 1600 degrees F).

Huber Engineered Woods
Crystal Hill Mill

Heat Generation and Drying
PM and PM10
Compliance Assurance Plan

GENERATION & DRYING WESP PM/PM10 CAM DATE: 2/13/08

Emission Unit	**Heat Generation and Drying**
Description	Wood fired furnace and flake drying equipment
Control Device	GEO Energy wet electro-static precipitators: DC1A, DC1B, DC1C, DC1D
Applicable Requirement	9 VAC 5-80-110 and Condition III.A.7 of the current Title V Permit
Regulated Pollutant	PM and PM-10
Emission Limit	11.80 lb/hr
I. CAM Indicator	Opacity as read from Continuous Opacity Monitors located on RTO stacks 1, 2, 4 and 5.
Measurement Approach	Measurement of opacity
Monitoring Frequency	Six minute averages of continuous opacity monitors averaged each hour.
Justification	See below.
II. Indicator Range	Zero to 10 percent opacity in a permit condition. The indicator range is determined to be 0% to 6%. Any reading above 6% opacity will be an indication of equipment failure and trigger investigation and corrective action as necessary.
III. Performance Criteria **Data Representativeness**	Opacity from RTO stacks 1, 2, 4, and 5 are a direct indicator of particulate carryover from the WESPs. An action level trigger has been determined to be an hourly average of 6% opacity. Should the opacity from any one of the online RTO stacks reach the 6% mark, the WESP operation must be evaluated and deficiencies corrected to return the unit to proper operation with a resulting opacity of less than 6% average per hour. Continuous Opacity Monitors located on each RTO stack continually monitored and averaging in 6 minute blocks averaged over an hour.
QA/QC Practices and Criteria	The mill will continuously track operating parameters on each RTO by using a plc based program data logger and a daily print out. A pc located in the dryer control room is used for hourly operator checks. The operator of the drying system will be alerted to a 6% or greater opacity reading by an audible alarm.
Data Collection Procedures	Opacity data collection is performed in database with backup capabilities. The data is downloaded and a report generated documenting . The report is kept on site for a minimum of 5 years.
Averaging period	One hour
Operational Indicator	There is a visible operational indicator showing the WESP is operating on the operator's console. If a malfunction occurs the light will go off and an alarm will sound alerting the operator to an equipment problem.

Justification

The justification for using the proposed CAM approach is based upon the principle that opacity is an accepted means of parametrically monitoring PM emissions. At Crystal Hill, the Heat Generation and Drying System is abated by four Wet Electrostatic Precipitators, one for each rotary dryer, and 3 online Regenerative Thermal Oxidizers. WESPs are used for the removal of PM and PM10 prior to the process gas stream entering the RTOs. Opacity is a direct indicator of PM and PM10 emissions. Based on the attached data, an excursion will be considered to have occurred if any one of the RTO's stack opacity reaches 6% averaged over a one hour period. Under this condition, immediate corrective action will be necessary in order to return the WESP to the established proper level of operation.

Huber Engineered Woods
Crystal Hill Mill

Hot Press
Volatile Organic Compounds
Compliance Assurance Plan

Compliance Assurance Monitoring

Regenerative Thermal Oxidizer for VOC: Crystal Hill Registration No. 30905

I. Background

A. Emissions Unit:

Description:	Regenerative Thermal Oxidizer 3
Identification:	Stack No. S5
Stack designation:	Thermal Oxidizer
Registration ID No:	30905
Facility:	Huber Engineered Woods LLC Crystal Hill P. O. Box 38 1000 Chaney Lane Crystal Hill, VA 24539

B. Applicable Regulation, Emission Limit, and Monitoring Requirements:

Regulation No: Permit Condition VII.A.4

Regulated pollutant: Volatile Organic Compounds
Emission Limit: 1.08 lb/hr

Monitoring requirements in permit:
Continuously monitor retention chamber temperature.

C. Control Technology: Regenerative Thermal Oxidizer

II. Monitoring Approach:

The key elements of the monitoring approach, including the indicators to be monitored, indicator ranges, and performance criteria are presented in Table A.

III. Data Availability:

Data collection frequency: For large emission units, a measurement frequency of four data points each hour that the process is operating is required. The data availability determination does not include periods of control device start up and shut down or malfunction. For an hour to be considered a valid hour of monitoring data, a minimum of 45 minutes of data must be available.

Table A.

	Indicator No. 1
I. Indicator Measurement Approach	Retention Chamber Temperature The chamber temperature is monitored with multiple thermocouples and averaged for the monitored chamber temperature.
II. Indicator Range	An excursion is defined as temperature readings less than 1500 °F; excursions trigger an inspection, corrective action, and reporting.
III. Performance Criteria A. Data Representativeness	The sensors are located in the oxidizer retention chamber as a part of original design. The minimum tolerance of the thermocouple is + or – 0.75% of the actual temperature. The minimum chart recorder sensitivity (minor division) is 20 °F.
B. Verification of Operational Status	RTO indicator light on the console is lit and all burners are fired.
C. QA/QC Practices	Accuracy of the thermocouple will be verified by bench calibration before installation and semiannual preventative maintenance inspections.
D. Monitoring Frequency	Measured continuously.
E. Data Collection Procedure	Recorded continuously on a circular chart recorder.
F. Averaging Period	No average is taken.

MONITORING APPROACH JUSTIFICATION

I Background

Huber Engineered Woods, LLC (Huber) operates an oriented strand board (OSB) manufacturing facility in Crystal Hill, Virginia under Title V Operating Permit No. VA-30905. Mixed pine and various southern hardwoods are received by truck, debarked,

cut to length, flaked, conveyed to wet metering bins, and dried in one of four wood flake dryers operating in parallel. The dry flakes are collected in primary cyclones, fed to rotary screens for fines removal, and conveyed to dry bins. Heat energy is supplied directly to the dryers and indirectly to the press by a wood-fired Wellons energy system. Dryer emissions are controlled by wet electrostatic precipitators in series with regenerative thermal oxidizers (RTO). During operation of the Drying system there will be three RTOs taking solvents with one RTO offline in a stand-by mode. Resins and wax are applied to the flaked material is after the drying process and just before being formed into a mat. The resinated material is loaded into a 14 opening hot press to be squeezed to proper thickness and cooked to cure the applied resins. VOCs emitted during the pressing process are relayed from the WPE to a Durr five can regenerative thermal oxidizer for destruction at a DRE of 90% or greater.

II Rationale for Selection of Performance Indicators

The RTO retention chamber temperature was selected because it is indicative of the thermal destruction occurring within the equipment designed residence time. If the retention chamber temperature decreases significantly, the required destruction may not occur. The same is true with residence time. If the process air does not remain in the retention chamber a minimum of 1.0 seconds, the permit required destruction may not occur.

III. Rationale for Selection of Indicator Ranges

Regenerative Thermal Oxidizer Temperature

The selected indicator range for the oxidizer retention chamber is “greater than 1500 degrees F at all times,” by permit condition. When an excursion occurs corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation.
Should the duration of a temperature excursion exceed 5 minutes, the VA DEQ will be notified and permit required documentation will be sent within the allotted timeframe.

Engineering testing in 2003 has shown the RTO has the ability to destruct VOC to levels below the permitted emission rate. During the engineering test, the RTO was operating with a temperature of at least 1500 degrees F (range 1550 to 1600 degrees F).

Huber Engineered Woods
Crystal Hill Mill

Baghouse
PM/PM10
Compliance Assurance Plan

Emission Unit	**BF (Blending and Forming line) FSS (Finish Sawing) DC4C (Unresinated Dust Handling System) SA2 (Six Head Sander)**
Description	All Baghouses used in the dust collection system.
Control Device	All MEC Baghouses as listed above.
Applicable Requirement	9 VAC 5-80-110 and Conditions V, VII, VIII and IX of the current Title V Permit
Regulated Pollutant	PM / PM-10
Emission Limit	Particulate Matter: 0.01 gr/dscf, PM-10: 0.01 gr/dscf
I. CAM Indicator	**Visible emissions**
Measurement Approach	Visible emissions from the fabric filter exhaust will be monitored using EPA Reference Method 22-like procedures.
Monitoring Frequency	Method 22-like monitoring will be performed for a minimum of one minute each day.
Justification	See below.
II. Indicator Range	An excursion is defined as the presence of visible emissions. Excursions trigger inspection, and corrective action
III. Performance Criteria **Data Representativeness**	Measurements are being made at the emission point (fabric filter exhaust).
QA/QC Practices and Criteria	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.
Data Collection Procedures	The VE observation is documented by the observer and kept onsite for a minimum of 5 years.

CAM Plan Justification

When a fabric filter is operating properly there will be no visible emissions from the exhaust stack. Presence of visible emissions is an indicator of substandard performance from a particulate controlling abatement device.

CAM Plan Indicator Ranges

The lack of visible emissions from an exhaust stack is suggestive of an intact and sealed filter bag system.

The chosen indicator range of a daily Method 22 observation will clearly show any failure of the bag capture system. A clear air stream from the discharge stack is indicative of proper particulate removal.